

RECEIVED

JAN 30 2003

TECH CENTER 1600/2900

1600

#15

DJS 2/11/03

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/541,462BDATE: 01/24/2003
TIME: 13:17:53Input Set : A:\5470-255.ST25.txt
Output Set: N:\CRF4\01242003\I541462B.raw

3 <110> APPLICANT: University of North Carolina at Chapel Hill
 4 Xiong, Yue
 5 Ohta, Tomohiko
 7 <120> TITLE OF INVENTION: ISOLATION OF ROC1 AND ROC2
 9 <130> FILE REFERENCE: 5470-255
 11 <140> CURRENT APPLICATION NUMBER: US 09/541,462B
 12 <141> CURRENT FILING DATE: 2000-03-21
 14 <160> NUMBER OF SEQ ID NOS: 41
 16 <170> SOFTWARE: PatentIn version 3.1
 18 <210> SEQ ID NO: 1
 19 <211> LENGTH: 327
 20 <212> TYPE: DNA
 21 <213> ORGANISM: Homo sapiens
 23 <220> FEATURE:
 24 <221> NAME/KEY: CDS
 25 <222> LOCATION: (1)..(324)
 26 <223> OTHER INFORMATION:

ENTERED

W--> 29 <400> 1
 30 atg gcg gca gcg atg gat gtg gat acc ccg agc ggc acc aac agc ggc 48
 31 Met Ala Ala Ala Met Asp Val Asp Thr Pro Ser Gly Thr Asn Ser Gly
 32 1 5 10 15
 34 gcg ggc aag aag cgc ttt gaa gtg aaa aag tgg aat gca gta gcc ctc 96
 35 Ala Gly Lys Lys Arg Phe Glu Val Lys Lys Trp Asn Ala Val Ala Leu
 36 20 25 30
 38 tgg gcc tgg gat att gtg gtt gat aac tgt gcc atc tgc agg aac cac 144
 39 Trp Ala Trp Asp Ile Val Val Asp Asn Cys Ala Ile Cys Arg Asn His
 40 35 40 45
 42 att atg gat ctt tgc ata gaa tgt caa gct aac cag gcg tcc gct act 192
 43 Ile Met Asp Leu Cys Ile Glu Cys Gln Ala Asn Gln Ala Ser Ala Thr
 44 50 55 60
 46 tca gaa gag tgt act gtc gca tgg gga gtc tgt aac cat gct ttt cac 240
 47 Ser Glu Glu Cys Thr Val Ala Trp Gly Val Cys Asn His Ala Phe His
 48 65 70 75 80
 50 ttc cac tgc atc tct cgc tgg ctc aaa aca cga cag gtg tgt cca ttg 288
 51 Phe His Cys Ile Ser Arg Trp Leu Lys Thr Arg Gln Val Cys Pro Leu
 52 85 90 95
 54 gac aac aga gag tgg gaa ttc caa aag tat ggg cac tag 327
 55 Asp Asn Arg Glu Trp Glu Phe Gln Lys Tyr Gly His
 56 100 105
 59 <210> SEQ ID NO: 2
 60 <211> LENGTH: 108
 61 <212> TYPE: PRT
 62 <213> ORGANISM: Homo sapiens

RAW SEQUENCE LISTING

DATE: 01/24/2003

PATENT APPLICATION: US/09/541,462B

TIME: 13:17:53

Input Set : A:\5470-255.ST25.txt

Output Set: N:\CRF4\01242003\I541462B.raw

64 <400> SEQUENCE: 2

```

66 Met Ala Ala Ala Met Asp Val Asp Thr Pro Ser Gly Thr Asn Ser Gly
67 1 5 10 15
70 Ala Gly Lys Lys Arg Phe Glu Val Lys Lys Trp Asn Ala Val Ala Leu
71 20 25 30
74 Trp Ala Trp Asp Ile Val Val Asp Asn Cys Ala Ile Cys Arg Asn His
75 35 40 45
78 Ile Met Asp Leu Cys Ile Glu Cys Gln Ala Asn Gln Ala Ser Ala Thr
79 50 55 60
82 Ser Glu Glu Cys Thr Val Ala Trp Gly Val Cys Asn His Ala Phe His
83 65 70 75 80
86 Phe His Cys Ile Ser Arg Trp Leu Lys Thr Arg Gln Val Cys Pro Leu
87 85 90 95
90 Asp Asn Arg Glu Trp Glu Phe Gln Lys Tyr Gly His
91 100 105

```

94 <210> SEQ ID NO: 3

95 <211> LENGTH: 342

96 <212> TYPE: DNA

97 <213> ORGANISM: Homo sapiens

99 <220> FEATURE:

100 <221> NAME/KEY: CDS

101 <222> LOCATION: (1)..(339)

102 <223> OTHER INFORMATION:

W--> 105 <400> 3

```

106 atg gcc gac gtg gaa gac gga gag gaa acc tgc gcc ctg gcc tct cac 48
107 Met Ala Asp Val Glu Asp Gly Glu Glu Thr Cys Ala Leu Ala Ser His
108 1 5 10 15
110 tcc ggg agc tca ggc tca acg tcg gga ggc gac aag atg ttc tcc ctc 96
111 Ser Gly Ser Ser Gly Ser Thr Ser Gly Gly Asp Lys Met Phe Ser Leu
112 20 25 30
114 aag aag tgg aac ccg gtg gcc atg tgg agc tgg gac gtg gag tgc gat 144
115 Lys Lys Trp Asn Pro Val Ala Met Trp Ser Trp Asp Val Glu Cys Asp
116 35 40 45
118 acg tgc gcc atc tgc agg gtc cag gtg atg gat gcc tgt ctt aga tgt 192
119 Thr Cys Ala Ile Cys Arg Val Gln Val Met Asp Ala Cys Leu Arg Cys
120 50 55 60
122 caa gct gaa aac aaa caa gag gac tgt gtt gtg gtc tgg gga gaa tgt 240
123 Gln Ala Glu Asn Lys Gln Glu Asp Cys Val Val Trp Gly Glu Cys
124 65 70 75 80
126 aat cat tcc ttc cac aac tgc tgc atg tcc ctg tgg gtg aaa cag aac 288
127 Asn His Ser Phe His Asn Cys Cys Met Ser Leu Trp Val Lys Gln Asn
128 85 90 95
130 aat cgc tgc cct ctc tgc cag cag gac tgg gtg gtc caa aga atc ggc 336
131 Asn Arg Cys Pro Leu Cys Gln Gln Asp Trp Val Val Gln Arg Ile Gly
132 100 105 110
134 aaa tga 342
135 Lys
139 <210> SEQ ID NO: 4
140 <211> LENGTH: 113

```

RAW SEQUENCE LISTING

DATE: 01/24/2003

PATENT APPLICATION: US/09/541,462B

TIME: 13:17:53

Input Set : A:\5470-255.ST25.txt

Output Set: N:\CRF4\01242003\I541462B.raw

```

141 <212> TYPE: PRT
142 <213> ORGANISM: Homo sapiens
144 <400> SEQUENCE: 4
146 Met Ala Asp Val Glu Asp Gly Glu Glu Thr Cys Ala Leu Ala Ser His
147 1 5 10 15
150 Ser Gly Ser Ser Gly Ser Thr Ser Gly Gly Asp Lys Met Phe Ser Leu
151 20 25 30
154 Lys Lys Trp Asn Pro Val Ala Met Trp Ser Trp Asp Val Glu Cys Asp
155 35 40 45
158 Thr Cys Ala Ile Cys Arg Val Gln Val Met Asp Ala Cys Leu Arg Cys
159 50 55 60
162 Gln Ala Glu Asn Lys Gln Glu Asp Cys Val Val Val Trp Gly Glu Cys
163 65 70 75 80
166 Asn His Ser Phe His Asn Cys Cys Met Ser Leu Trp Val Lys Gln Asn
167 85 90 95
170 Asn Arg Cys Pro Leu Cys Gln Gln Asp Trp Val Val Gln Arg Ile Gly
171 100 105 110
174 Lys
178 <210> SEQ ID NO: 5
179 <211> LENGTH: 33
180 <212> TYPE: DNA
181 <213> ORGANISM: Artificial sequence
183 <220> FEATURE:
184 <223> OTHER INFORMATION: Synthetic oligonucleotide primer
186 <400> SEQUENCE: 5
187 ttttaagaga aataggatcc catgagcaac gaa
190 <210> SEQ ID NO: 6
191 <211> LENGTH: 33
192 <212> TYPE: DNA
193 <213> ORGANISM: Artificial sequence
195 <220> FEATURE:
196 <223> OTHER INFORMATION: Synthetic oligonucleotide primer
198 <400> SEQUENCE: 6
199 ttaaagtgtt acggggaatt cattttttca cct
202 <210> SEQ ID NO: 7
203 <211> LENGTH: 33
204 <212> TYPE: DNA
205 <213> ORGANISM: Artificial sequence
207 <220> FEATURE:
208 <223> OTHER INFORMATION: Synthetic oligonucleotide primer
210 <400> SEQUENCE: 7
211 ggcaatacac attaggatcc tatgaaagtt aaa
214 <210> SEQ ID NO: 8
215 <211> LENGTH: 33
216 <212> TYPE: DNA
217 <213> ORGANISM: Artificial sequence
219 <220> FEATURE:
220 <223> OTHER INFORMATION: Synthetic oligonucleotide primer
222 <400> SEQUENCE: 8

```

33

33

33

RAW SEQUENCE LISTING

DATE: 01/24/2003

PATENT APPLICATION: US/09/541,462B

TIME: 13:17:53

Input Set : A:\5470-255.ST25.txt

Output Set: N:\CRF4\01242003\I541462B.raw

```
223 aattgtgatt tctagaattc ttttttatcg taa 33
226 <210> SEQ ID NO: 9
227 <211> LENGTH: 33
228 <212> TYPE: DNA
229 <213> ORGANISM: Artificial sequence
231 <220> FEATURE:
232 <223> OTHER INFORMATION: Synthetic oligonucleotide primer
234 <400> SEQUENCE: 9
235 atccccatgg ctatgataac taataagaaa ata 33
238 <210> SEQ ID NO: 10
239 <211> LENGTH: 33
240 <212> TYPE: DNA
241 <213> ORGANISM: Artificial sequence
243 <220> FEATURE:
244 <223> OTHER INFORMATION: Synthetic oligonucleotide primer
246 <400> SEQUENCE: 10
247 ctgcagagct cgtaggaaa ggtaatggta ata 33
250 <210> SEQ ID NO: 11
251 <211> LENGTH: 33
252 <212> TYPE: DNA
253 <213> ORGANISM: Artificial sequence
255 <220> FEATURE:
256 <223> OTHER INFORMATION: Synthetic oligonucleotide primer
258 <400> SEQUENCE: 11
259 atccccatgg ctatgataaa tgagagcggt tcc 33
262 <210> SEQ ID NO: 12
263 <211> LENGTH: 33
264 <212> TYPE: DNA
265 <213> ORGANISM: Artificial sequence
267 <220> FEATURE:
268 <223> OTHER INFORMATION: Synthetic oligonucleotide primer
270 <400> SEQUENCE: 12
271 agctcgtcga cattagtact tgtaagttgc tat 33
274 <210> SEQ ID NO: 13
275 <211> LENGTH: 33
276 <212> TYPE: DNA
277 <213> ORGANISM: Artificial sequence
279 <220> FEATURE:
280 <223> OTHER INFORMATION: Synthetic oligonucleotide primer
282 <400> SEQUENCE: 13
283 atccccatgg ctatgtcatt tcagattacc cca 33
286 <210> SEQ ID NO: 14
287 <211> LENGTH: 33
288 <212> TYPE: DNA
289 <213> ORGANISM: Artificial sequence
291 <220> FEATURE:
292 <223> OTHER INFORMATION: Synthetic oligonucleotide primer
294 <400> SEQUENCE: 14
295 agctcgtcga catcatgagt ttttatgccc att 33
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/541,462B

DATE: 01/24/2003

TIME: 13:17:53

Input Set : A:\5470-255.ST25.txt

Output Set: N:\CRF4\01242003\I541462B.raw

```

298 <210> SEQ ID NO: 15
299 <211> LENGTH: 15
300 <212> TYPE: PRT
301 <213> ORGANISM: Artificial sequence
303 <220> FEATURE:
304 <223> OTHER INFORMATION: Synthetic peptide
306 <400> SEQUENCE: 15
308 Cys Met Ala Ala Ala Met Asp Val Asp Thr Pro Ser Gly Thr Asn
309 1           5           10           15
312 <210> SEQ ID NO: 16
313 <211> LENGTH: 13
314 <212> TYPE: PRT
315 <213> ORGANISM: Artificial sequence
317 <220> FEATURE:
318 <223> OTHER INFORMATION: Synthetic peptide
320 <400> SEQUENCE: 16
322 Cys Asp Asn Arg Glu Trp Glu Phe Gln Lys Tyr Gly His
323 1           5           10
326 <210> SEQ ID NO: 17
327 <211> LENGTH: 9
328 <212> TYPE: PRT
329 <213> ORGANISM: Artificial sequence
331 <220> FEATURE:
332 <223> OTHER INFORMATION: Synthetic peptide
334 <400> SEQUENCE: 17
336 Cys Arg Gln Glu Trp Lys Phe Lys Glu
337 1           5
340 <210> SEQ ID NO: 18
341 <211> LENGTH: 14
342 <212> TYPE: PRT
343 <213> ORGANISM: Artificial sequence
345 <220> FEATURE:
346 <223> OTHER INFORMATION: Synthetic peptide
348 <400> SEQUENCE: 18
350 Cys Arg Ser Gln Ala Ser Ala Asp Glu Tyr Ser Tyr Val Ala
351 1           5           10
354 <210> SEQ ID NO: 19
355 <211> LENGTH: 60
356 <212> TYPE: DNA
357 <213> ORGANISM: Artificial sequence
359 <220> FEATURE:
360 <223> OTHER INFORMATION: Synthetic oligonucleotide primer
362 <400> SEQUENCE: 19
363 ttctccagtgcgagagaactttaaagagaaatagttcaacgcgatcccccgggtaattaa 60
366 <210> SEQ ID NO: 20
367 <211> LENGTH: 60
368 <212> TYPE: DNA
369 <213> ORGANISM: Artificial sequence
371 <220> FEATURE:

```

VERIFICATION SUMMARY

DATE: 01/24/2003

PATENT APPLICATION: US/09/541,462B

TIME: 13:17:54

Input Set : A:\5470-255.ST25.txt

Output Set: N:\CRF4\01242003\I541462B.raw

L:29 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:26

L:105 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:3,Line#:102